

**A taxonomic note on *Erionota acroleuca* (Wood-Mason & de Nicéville, 1881) stat. rest. (Lepidoptera: HesperIIDae)**GUO-XI XUE¹ & YIK FUI PHILIP LO²¹*School of Food and Bioengineering, Zhengzhou University of Light Industry, No.5 Dongfeng Road, Zhengzhou, Henan, 450002, P. R. China. E-mail: xueguoxi95227@163.com*²*Kadoorie Conservation China, Kadoorie Farm and Botanic Garden, Lam Kam Road, Tai Po, New Territories, Hong Kong. E-mail: philiplo@kfbg.org*

The purpose of this paper is to restore *Erionota acroleuca* (Wood-Mason & de Nicéville, 1881) as a valid name, and to establish *Erionota acroleuca apicalis* de Jong & Treadaway, 1992 as a new subspecific combination, with its immature biology briefly introduced.

Erionota acroleuca* (Wood-Mason & de Nicéville, 1881), stat. rest.Telegonus acroleucus* Wood-Mason & de Nicéville, 1881 (Aug.): 143 (original description).*Hesperia hiraca* Moore, 1881 (Sept.): 313 (original description).*Hesperia acroleuca*: Wood-Mason & de Nicéville (1881 Dec.: 260) (synonyms, description).*Teligonus lara* Swinhoe, 1890: 365 (original description).*Erionota acroleuca*: Watson (1891: 107) (name list); Evans (1941: 159) (description, synonyms, subspecies); Evans (1949: 327) (description, synonyms, subspecies).*Erionota thrax acroleuca*: Evans (1927: 440) (description, distribution, synonyms); Evans (1932: 373) (description, distribution, synonyms); Khatri (1993: 184) (name list).*Erionota hiraca*: de Jong & Treadaway (1992: 134) (description); de Jong & Treadaway (2007: 47) (nomenclature, distribution, variation); Ek-Amnuay *et al.* (2007: 16) (nomenclature); de Jong & Treadaway (2008: 10) (distribution); Mohanraj & Veenakumari (2011: 6) (checklist, distribution).

Remarks. The date of publication printed on the paper which originally described *acroleuca* is “August, 1881” (Wood-Mason & de Nicéville 1881 Aug.). While Bridges (1988) recorded the publication date of this name as October, 1881, and that of *hiraca* as September, 1881. According to this record, de Jong & Treadaway (1992) shifted the priority from *acroleuca* to *hiraca*, this treatment continued in their subsequent works (de Jong & Treadaway 2007, 2008), and was also followed by others (e.g. Devyatkin & Monastyrskii 1999; Kitamura 2003; Ek-Amnuay *et al.* 2007; Mohanraj & Veenakumari 2011). But: 1) in a paper issued on 21 December, 1881, Wood-Mason & de Nicéville described *acroleucus* again in a more detailed way under the name “*Hesperia acroleuca*”, they even gave a one-month priority of their name *acroleucus* (August) over Moore’s *hiraca* (September). 2) the “letter code” assigned to *acroleucus* in Bridges (1988, 1994) is “a”, meaning “available valid species name”, and that to *hiraca* is “c” meaning “synonym”; the name *hiraca* is clearly recorded as “SS: *acroleucus* (Wood-Mason & de Nicéville), 1881” with a note “Close, September versus August”, indicating that *hiraca* is a junior synonym of *acroleucus* because of one month behind in publication. 3) The library of the Natural History Museum in London confirmed that the original paper of *acroleucus* was published in August 1881. Thus, according to Chapter 5 (Articles 21 and 22) of the International Code of Zoological Nomenclature (Fourth Edition), the date of publication of the original paper introducing *acroleuca* should be accepted as [31 August] 1881. The nomenclatural act by de Jong & Treadaway (1992), which has caused a misapplication of *hiraca* and threatened the stability of *acroleuca*, should be corrected. Therefore, we restore *acroleuca* to a valid name, and submerge *hiraca* herein.

***Erionota acroleuca apicalis* de Jong & Treadaway, 1992, new combination**

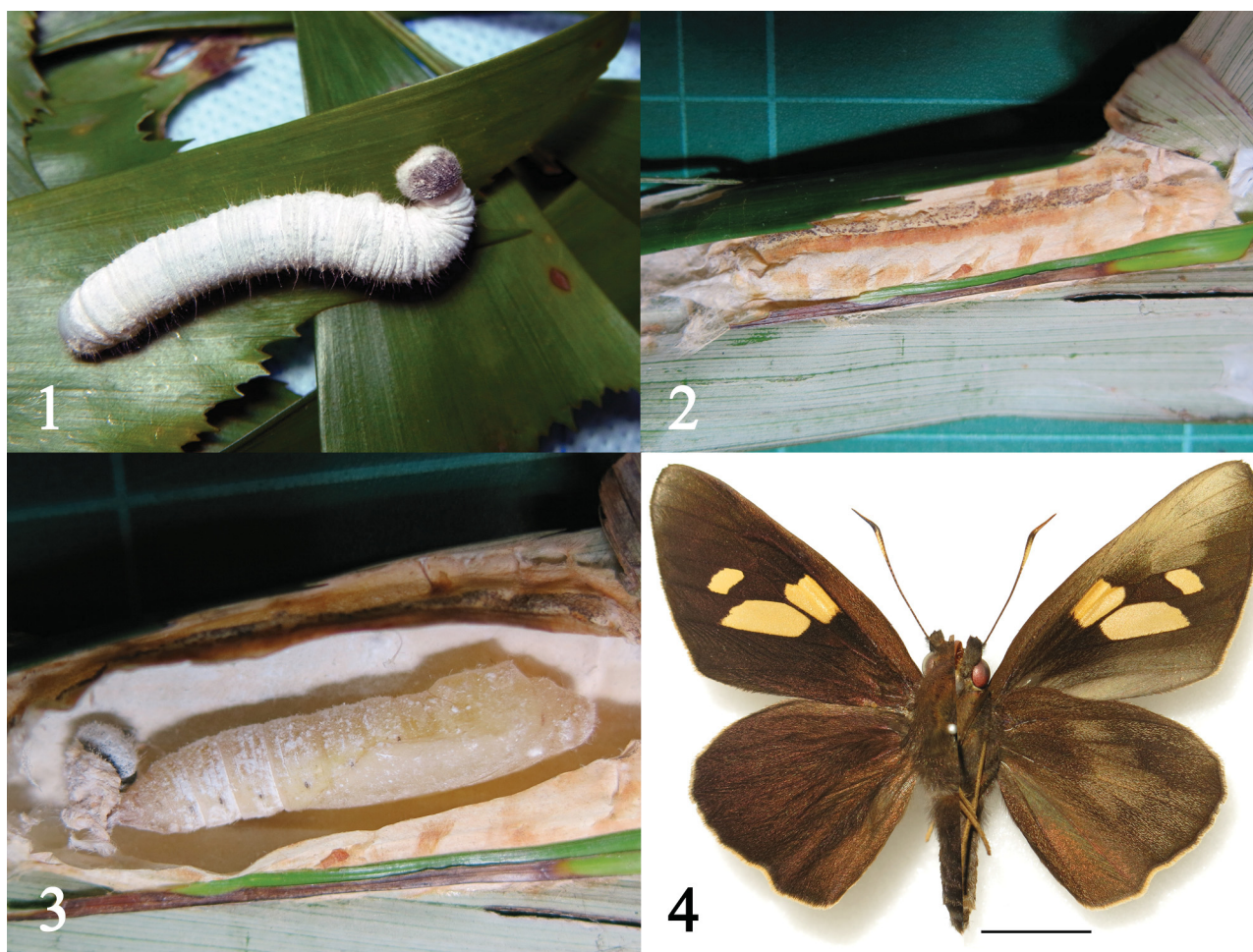
(Figs. 1–4)

Erionota thrax thrax var. *apicalis* Evans, 1932: 373 (original description).

Erionota acroleuca apex: Inoué & Kawazoe (1970: 3) (description and illustrations of male and female genitalia); Ek-Amnuay (2006: 810) (description, color plates of adults).

Erionota hiraca apicalis: de Jong & Treadaway (1992: 135) (description, distribution); Devyatkin & Monastyrskii (1999: 172) (nomenclature).

Material examined. 1♀, Menglun, Mengla County, Xishuangbanna, Yunnan, China, 570m, 7.IX.2004, leg. Y. Qiao (ZULI); 1♂1♀, Nangongshan, Mengla County, Xishuangbanna, Yunnan, China, 1000m, 29.III.2012, leg. Y.F.P. Lo, reared from *Caryota ochlandra*, emgd. 22.IV.2012, genitalia preparation: YFL h0032 (KFBG); 2♂, Laohutiao Nature Reserve, Napo County, Baise, Guangxi, China, 370m, 24.II.2014, leg. Y.F.P. Lo, pupa from *Arenga westerhoutii*, emgd. 8.III.2014.



FIGURES 1–4. *Erionota acroleuca apicalis* from S. Yunnan, China. 1. last instar larva; 2. pupal nest; 3. pupa; 4. male adult, scale bar = 1 cm.

Immature biology. Host plant records are *Caryota ochlandra* in Yunnan and *Arenga westerhoutii* in Guangxi, both species belong to the family Arecaceae. Eggs are laid in cluster on the underside of host plant. The larvae on *Caryota ochlandra* stay on different pinnae of the same secondary rachis and roll the pinnae into a cone-shape shelter. The pupa is pale cream in colour with brown spiracles and is sealed in a cocoon. The proboscis is long, extending just beyond the cremaster. The cremaster is attached to a diffuse silk pad and there is no girdle. The length of pupa is 33mm (n=2). The pupa shelter on *Arenga westerhoutii* is constructed by rolling the undersurface of the apex half of rachis laterally. Similar to the other two Chinese *Erionota* species, *E. torus* and *E. grandis*, the larva and pupa of *E. acroleuca* are covered with white waxy powder.

Kitamura (2003) reported the immature stage of *E. acroleuca apex* (as *E. hiraca apex*) from Samar Island,

Philippines and the recorded host plant was *Livistonia rotundifolia* (Arecaceae). The second author of the present paper also reared two individuals of *E. acroleuca apicalis* from an unidentified palm in Singapore (unpublished record). Available information reveals that the species is primarily a palm feeder.

Remarks. As an infrasubspecific name, *Erionota thrax thrax* var. *apicalis* Evans, 1932 is nomenclaturally unavailable. de Jong & Treadaway (1992) treated *apicalis* as a good subspecies of *E. hiraca* and used the name “*Erionota hiraca apicalis* Evans, 1932”. This act actually established a new subspecific combination which is an available name. According to Article 45.5.1 of the International Code of Zoological Nomenclature (Fourth Edition), the authorship of this name should be attributed to de Jong & Treadaway (1992).

Acknowledgements. Field work in Guangxi, China was assisted by Napo County Forestry Department. This study is supported by the National Science Foundation of China (41401067) and the Kadoorie Farm and Botanic Garden, Hong Kong.

References

- Bridges, C.A. (1988) *Catalogue of HesperIIDae (Lepidoptera: Rhopalocera)*. Charles A. Bridges, Illinois, 463 pp.
- Bridges, C.A. (1994) *Catalogue of the Family-Group, Genus-Group and Species-Group Names of the Hesperioidea (Lepidoptera) of the World*. Charles A. Bridges, Illinois, 596 pp.
- Devyatkin, A.L. & Monastyrskii, A.L. (1999) HesperIIDae of Vietnam, 5. An annotated list of the HesperIIDae of North and Central Vietnam (Lepidoptera, HesperIIDae). *Atalanta*, 29 (1/4), 151–184.
- Ek-Amnuay, P. (2006) *Butterflies of Thailand. Fascinating insects Vol. 2 (1st edition)*. Amarin Printing and Publishing, Bangkok, 849 pp.
- Ek-Amnuay, P., Chiba, H., Kimura, Y., Inayoshi, Y., Saito, K., Seki, Y. & Uémura, Y. (2007) Corrigenda to “Butterflies of Thailand” (Ek-Amnuay, 2006). *Yadoriga*, 213, 2–20.
- Evans, B.W.H. (1927) *The identification of Indian Butterflies (1st Ed.)*. The Bombay Natural History Society, Madras, 302 pp.
- Evans, B.W.H. (1932) *The identification of Indian Butterflies (Second Edition Revised)*. The Bombay Natural History Society, Madras, 454 pp.
- Evans, B.W.H. (1941) A revision of the genus *Erionota* Mabille (Lep: Hesp.). *The Entomologist*, 74 (7), 158–160.
- Evans, B.W.H. (1949) *A Catalogue of HesperIIDae from Europe, Asia and Australia in the British Museum (Natural History)*. The British Museum, London, ix+502 pp.
- Inoué, S. & Kawazoe, A. (1970) Hesperiid Butterflies from South Vietnam (5). *Tyô to Ga*, 21 (1 & 2), 1–14.
- de Jong, R. & Treadaway, C.G. (1992) Notizen über einige *Erionota*-Arten nebst Beschreibung einer neuen Art (Lepidoptera: HesperIIDae). *Entomologische Zeitschrift*, 102 (8), 133–142.
- de Jong, R. & Treadaway, C.G. (2007) HesperIIDae of the Philippine Islands. *Butterflies of the World*, Supplement 15, 3–72.
- de Jong, R. & Treadaway, C.G. (2008) HesperIIDae I: HesperIIDae of the Philippine Islands. *Butterflies of the World*, Part 29, 1–17. [plates. 1–39]
- Khatri, T.C. (1993) Butterflies of the Andaman and Nicobar Islands: Conservation Concerns. *Journal of Research on the Lepidoptera*, 32, 170–184.
- Kitamura, M. (2003) Letters from Samar/ Leyte (7). Larval stages of three miscellaneous skippers. *TSU I SO*, (1112/ 1113), 1–19. [in Japanese]
- Moore, F. (1881 September) Descriptions of new Asiatic diurnal Lepidoptera. *Transactions of the entomological Society of London*, 29 (3), 305–313.
- Mohanraj, P. & Veenakumari, K. (2011) Butterflies of the Andaman and Nicobar islands: History of collection and checklist. *Zootaxa*, 3050, 1–36.
- Swinhoe, C. (1890) New Species of Indian Butterflies. *Annals and Magazine of Natural History [London]*, 5 (6), 353–365.
<http://dx.doi.org/10.1080/00222939009460847>
- Watson, E.Y. (1891) *HesperIIDae Indicae, being a reprint of descriptions of the HesperIIDae of India, Burma and Ceylon*. Madras, 131 pp.
- Wood-Mason, J. & de Niceville, L. (1881 August) Abstract of: Second List of Rhopalocerous Lepidoptera from the Andaman Islands, with Descriptions of new or little-known species and Varieties. *Proceedings of the Asiatic Society of Bengal*, 142–143.
- Wood-Mason, J. & de Niceville, L. (1881 December) Second List of Rhopalocerous Lepidoptera from Port Blair, Andaman Islands, with Descriptions of, and Notes on, new and little-known Species and Varieties. *Journal of the Asiatic Society of Bengal, Part II*, 50 (4), 243–262.